



SELECTION GUIDE

## Innovative Cleaning Technology

Spray Wash Cleaners

Ultrasonic Cleaners

Vibratory Cleaners

Immersion Cleaners

Acid Cleaners

Floor Cleaners

Maintenance Cleaners

Machine Tool Cleaners

Solvent Cleaners

ISO 9001:2008

# Cleaning Technology You Can Count On

## **Formulatory Expertise & Quality Manufacturing**

QualiChem's state of the art manufacturing facility utilizes a precision manufacturing process to blend our products to tight quality control parameters as defined and affirmed through our ISO 9001:2008 Certification.

## **Product Stewardship**

Human and Environmental Safety is our foremost objective during the research, development and manufacturing of our products. QualiChem's drive to deliver high performance is equaled only by our commitment to health, safety and environmental responsibility.

## **Comprehensive Technical Support**

QualiChem provides complete technical, sales and laboratory support for all of our cleaners. Our experienced sales engineers have the manufacturing knowledge and industry experience to recommend the best QualiChem product to maximize performance and cost-effectiveness for any cleaning process.

**To determine the best cleaner for your process, please contact your local QualiChem Distributor or QualiChem Sales Engineer.**



You may use this QR code to go directly to our online Cleaner Selection Survey form. Fill out and submit the form. A QualiChem Sales Engineer will contact you directly.

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**The following easy-to-use selection guide will help to identify the products best suited for your needs. Each cleaner is listed by its primary application:**

- **Spray Wash Cleaners**
- **Immersion Cleaners**
- **Maintenance Cleaners**
- **Ultrasonic Cleaners**
- **Acid Cleaners**
- **Machine Tool Cleaners**
- **Vibratory Cleaners**
- **Floor Cleaners**
- **Solvent Cleaners**

## Cleaners Selection Guide

### SPRAY WASH CLEANERS

PRODUCT / DESCRIPTION	CHEMISTRY <sup>1</sup>	TYPE	CONC. RANGE	AVG. OPER. pH	OPERATING TEMP. RANGE	METAL SAFETY	SOILS REMOVED	CLEANING POWER & PERFORMANCE BENEFITS
<b>MET-KLEEN 105</b> Alkaline Spray Wash and Rust Preventative	Oil-rejecting	Liquid	3-5%	10.5	100°-140°F (38°-60°C)	• Fe	<ul style="list-style-type: none"> <li>• Cutting fluids</li> <li>• Oil</li> <li>• Drawing &amp; polishing compounds</li> <li>• Carbon</li> <li>• Organic &amp; inorganic materials</li> </ul>	<b>Light to Moderate Duty</b> <ul style="list-style-type: none"> <li>• Specifically formulated for single stage washers where the fluid needs to clean and provide rust protection</li> <li>• Low foaming with excellent oil rejection for easy skimming</li> <li>• Silicate-free</li> </ul>
<b>MET-KLEEN 110S</b> Economical Spray Wash Cleaner	Oil-dispersing	Liquid	3-10%	10.8	100°-160°F (38°-71°C)	<ul style="list-style-type: none"> <li>• Al</li> <li>• Fe</li> <li>• Yellow metals</li> </ul>	<ul style="list-style-type: none"> <li>• Cutting fluids</li> <li>• Oil</li> <li>• Drawing &amp; polishing compounds</li> <li>• Carbon &amp; baked on residues</li> <li>• Organic &amp; inorganic materials</li> </ul>	<b>Moderate Duty</b> <ul style="list-style-type: none"> <li>• General purpose cleaner and rust preventative</li> <li>• For use in all types of industrial spray wash applications from single stage washer to multi-stage washer and intensive flood washers</li> <li>• Low foaming</li> <li>• Long bath life</li> </ul>
<b>MET-KLEEN 117</b> Multi-Purpose Metal Cleaner	Oil-rejecting	Liquid	3-9%	9.5	100°-140°F (38°-60°C)	<ul style="list-style-type: none"> <li>• Fe</li> <li>• Yellow metals</li> </ul>	<ul style="list-style-type: none"> <li>• Cutting fluids</li> <li>• Oil</li> <li>• Carbon</li> <li>• Organic materials</li> </ul>	<b>Light to Moderate Duty</b> <ul style="list-style-type: none"> <li>• Lower pH and milder alkalinity makes this premium cleaner very operator friendly and non-staining to ferrous alloys and yellow metals</li> <li>• Low foaming with excellent oil rejection for easy skimming</li> <li>• May also be used in immersion and ultrasonic cleaning applications</li> </ul>
<b>MET-KLEEN 120S</b> Low Residue Spray Wash Cleaner	Oil-rejecting	Liquid	3-10%	9.8	100°-140°F (38°-60°C)	• Fe	<ul style="list-style-type: none"> <li>• Cutting fluids</li> <li>• Oil</li> <li>• Carbon</li> <li>• Organic &amp; inorganic materials</li> </ul>	<b>Light Duty</b> <ul style="list-style-type: none"> <li>• Silicate-free multi-purpose cleaner with superior in-process corrosion protection (Better rust protection than MET-KLEEN 110S)</li> <li>• For use in all types of industrial spray wash applications from single stage washer to multi-stage washer and intensive flood washers</li> <li>• Low foaming with excellent oil rejection for easy skimming</li> <li>• Long bath life</li> <li>• Moderate pH reduces possibility of skin irritation</li> </ul>
<b>MET-KLEEN 130N</b> Heavy Duty Alkaline Metal Cleaner	Oil-rejecting	Liquid	2-10%	11.0	100°-180°F (38°-82°C)	<ul style="list-style-type: none"> <li>• Al</li> <li>• Fe</li> <li>• Yellow metals</li> </ul>	<ul style="list-style-type: none"> <li>• Cutting fluids</li> <li>• Grease &amp; oil</li> <li>• Drawing &amp; polishing compounds</li> <li>• Carbon &amp; baked on residues</li> <li>• Organic &amp; inorganic materials</li> </ul>	<b>Heavy Duty</b> <ul style="list-style-type: none"> <li>• Multi-metal cleaner with good rust protection</li> <li>• Low foaming with excellent oil rejection for easy skimming</li> </ul>
<b>MET-KLEEN 140</b> Aluminum Spray Cleaner	Oil-dispersing	Liquid	2-10%	12.2	100°-140°F (38°-60°C)	<ul style="list-style-type: none"> <li>• Al</li> <li>• Fe</li> <li>• Yellow metals</li> </ul>	<ul style="list-style-type: none"> <li>• Cutting fluids</li> <li>• Grease &amp; oil</li> <li>• Drawing &amp; polishing compounds</li> <li>• Carbon &amp; baked on residues</li> <li>• Organic &amp; inorganic materials</li> </ul>	<b>Moderate Duty</b> <ul style="list-style-type: none"> <li>• Multi-metal cleaner with superior in-process corrosion protection. Best option for aluminum</li> <li>• Low foaming</li> <li>• Long bath life</li> <li>• May also be used in immersion and ultrasonic cleaning applications</li> </ul>
<b>MET-KLEEN 146</b> Heavy Duty, Low Residue, Spray Wash Ferrous Metal Cleaner	Oil-rejecting	Liquid	2-10%	11.4	100°-180°F (38°-82°C)	• Fe	<ul style="list-style-type: none"> <li>• Cutting fluids</li> <li>• Grease &amp; oil</li> <li>• Drawing &amp; polishing compounds</li> <li>• Carbon &amp; baked on residues</li> <li>• Organic &amp; inorganic materials</li> </ul>	<b>Heavy Duty</b> <ul style="list-style-type: none"> <li>• Silicate-free cleaner with superior in-process corrosion protection</li> <li>• Removes "varnished" oils</li> <li>• Low foaming with excellent oil rejection for easy skimming</li> <li>• May also be used in immersion cleaning applications</li> </ul>

<sup>1</sup> Oil-rejecting cleaners split oils to the top for easy skimming. Oil-dispersing cleaners break up the soil into fine particles, which are then suspended and flushed off the surface. Emulsifying cleaners break up and suspend loosened dirt to keep it from settling back on the cleaned surface.

## Cleaners Selection Guide continued

### SPRAY WASH CLEANERS CONTINUED

PRODUCT / DESCRIPTION	CHEMISTRY <sup>1</sup>	TYPE	CONC. RANGE	AVG. OPER. pH	OPERATING TEMP. RANGE	METAL SAFETY	SOILS REMOVED	CLEANING POWER & PERFORMANCE BENEFITS
<b>MET-KLEEN 150</b> Extra Heavy Duty Spray Wash Metal Cleaner	Oil-rejecting	Liquid	2-10%	11.2	100°-180°F (38°- 82°C)	<ul style="list-style-type: none"> <li>Al</li> <li>Fe</li> <li>Yellow metals</li> </ul>	<ul style="list-style-type: none"> <li>Cutting fluids</li> <li>Grease &amp; oil</li> <li>Drawing &amp; polishing compounds</li> <li>Carbon &amp; baked on residues</li> <li>Organic &amp; inorganic materials</li> </ul>	<b>Extra Heavy Duty</b> <ul style="list-style-type: none"> <li>Multi-metal cleaner with in-process corrosion protection</li> <li>Very low foaming with excellent oil rejection for easy skimming</li> <li>High alkalinity requires non-ferrous metals to be rinsed to prevent staining</li> <li>May also be used in immersion cleaning applications</li> </ul>
<b>MET-KLEEN 195S</b> Powdered Spray Wash Cleaner	Oil-dispersing	Powder	2-8 oz./gal.	13.0	> 120°F (49°C)	<ul style="list-style-type: none"> <li>Fe</li> </ul>	<ul style="list-style-type: none"> <li>Cutting fluids</li> <li>Grease &amp; oil</li> <li>Drawing &amp; polishing compounds</li> <li>Carbon &amp; baked on residues</li> <li>Organic &amp; inorganic materials</li> </ul>	<b>Extra Heavy Duty</b> <ul style="list-style-type: none"> <li>Super heavy duty metal cleaner and degreaser with good rust protection</li> <li>Primarily for use in spray washers and other applications where little or no foam can be tolerated</li> <li>Economical, concentrated powder</li> <li>May also be used in immersion cleaning applications</li> </ul>
<b>MET-KLEEN XHP</b> Extreme High Pressure Spray Wash Cleaner	Oil-rejecting	Liquid	3-5%	8.1-8.5	100°-150°F (38°-66°C)	<ul style="list-style-type: none"> <li>Al</li> <li>Fe</li> <li>Yellow metals</li> </ul>	<ul style="list-style-type: none"> <li>Cutting fluids</li> <li>Oil</li> <li>Carbon</li> <li>Organic materials</li> </ul>	<b>Light Duty</b> <ul style="list-style-type: none"> <li>For use in enclosed spray washers operating at 2,000-10,000 psi</li> <li>Low foaming eliminates foam-outs</li> <li>Excellent short-term corrosion protection</li> <li>Highly resistant to bacterial and fungal attack</li> <li>Low pH promotes operator acceptance and reduces the possibility of skin irritation</li> </ul>

### ULTRASONIC CLEANERS

PRODUCT / DESCRIPTION	CHEMISTRY <sup>1</sup>	TYPE	CONC. RANGE	AVG. OPER. pH	OPERATING TEMP. RANGE	METAL SAFETY	SOILS REMOVED	CLEANING POWER & PERFORMANCE BENEFITS
<b>MET-KLEEN 113</b> Ultrasonic Immersion Metal Cleaner	Oil-dispersing	Liquid	2-10%	8.9	Ambient-100°F (38°C)	<ul style="list-style-type: none"> <li>Al</li> <li>Fe</li> <li>Yellow metals</li> </ul>	<ul style="list-style-type: none"> <li>Cutting fluids</li> <li>Organic &amp; inorganic materials</li> </ul>	<b>Light Duty</b> <ul style="list-style-type: none"> <li>Multi-metal cleaner with good rust protection</li> </ul>

### VIBRATORY CLEANERS

PRODUCT / DESCRIPTION	CHEMISTRY <sup>1</sup>	TYPE	CONC. RANGE	AVG. OPER. pH	OPERATING TEMP. RANGE	METAL SAFETY	SOILS REMOVED	CLEANING POWER & PERFORMANCE BENEFITS
<b>MET-KLEEN 935</b> Vibratory Finishing Cleaner	Oil-dispersing	Liquid	2-5%	7.7	Ambient	<ul style="list-style-type: none"> <li>Al</li> <li>Fe</li> <li>Yellow metals</li> </ul>	<ul style="list-style-type: none"> <li>Cutting fluids</li> <li>Organic materials</li> </ul>	<b>Light Duty</b> <ul style="list-style-type: none"> <li>Mild alkaline, multi-metal cleaner with in-process corrosion protection</li> <li>Keeps abrasive material clean and free of dirt loading</li> <li>Low foaming surfactants to prevent pump cavitations and foam-outs</li> <li>Lower pH and milder alkalinity makes this cleaner very operator friendly and non-staining to ferrous alloys and yellow metals</li> <li>May also be used in ultrasonic cleaning applications</li> </ul>

<sup>1</sup> Oil-rejecting cleaners split oils to the top for easy skimming. Oil-dispersing cleaners break up the soil into fine particles, which are then suspended and flushed off the surface. Emulsifying cleaners break up and suspend loosened dirt to keep it from settling back on the cleaned surface.

## Cleaners Selection Guide continued

### IMMERSION CLEANERS: AGI-LIFTS AND SOAK TANKS

PRODUCT / DESCRIPTION	CHEMISTRY <sup>1</sup>	TYPE	CONC. RANGE	AVG. OPER. pH	OPERATING TEMP. RANGE	METAL SAFETY	SOILS REMOVED	CLEANING POWER & PERFORMANCE BENEFITS
<b>MET-KLEEN 118</b> Multi-Purpose Metal Cleaner	Oil-dispersing	Liquid	3-9%	8.9	100°-140°F (38°-60°C)	<ul style="list-style-type: none"> <li>Al</li> <li>Fe</li> <li>Yellow metals</li> </ul>	<ul style="list-style-type: none"> <li>Cutting fluids</li> <li>Oil</li> <li>Carbon</li> <li>Organic materials</li> </ul>	<b>Light to Moderate Duty</b> <ul style="list-style-type: none"> <li>Superior in-process corrosion protection</li> <li>Very operator friendly due to low pH and mild alkalinity</li> <li>May also be used in spray wash and ultrasonic cleaning applications</li> </ul>
<b>MET-KLEEN 130E</b> Emulsifying Multi-Metal Soak Tank Cleaner	Emulsifying	Liquid	2-9%	10.9	Ambient-180°F (82°C)	<ul style="list-style-type: none"> <li>Al</li> <li>Fe</li> <li>Yellow metals</li> </ul>	<ul style="list-style-type: none"> <li>Cutting fluids</li> <li>Grease &amp; oil</li> <li>Drawing &amp; polishing compounds</li> <li>Carbon &amp; baked on residues</li> <li>Organic &amp; inorganic materials</li> </ul>	<b>Moderate to Heavy Duty</b> <ul style="list-style-type: none"> <li>Emulsifies free oils so they do not redeposit onto parts</li> <li>Good rust protection</li> <li>May also be used in spray wash cleaning applications</li> </ul>
<b>RUST KLEEN 165</b> Alkaline Rust Stripper	Oil-rejecting	Liquid	30-50%	13.6	180°- 200°F (82°- 93°C)	<ul style="list-style-type: none"> <li>Fe</li> </ul>	<ul style="list-style-type: none"> <li>Rust</li> </ul>	<b>Heavy Duty</b> <ul style="list-style-type: none"> <li>Designed to remove red rust from ferrous parts</li> <li>Rapid stripping action with no corrosive fumes. Does not require special tank linings or neutralizing after stripping</li> <li>May also be used in spray wash cleaning applications</li> </ul>
<b>RUST KLEEN 175</b> Neutral pH Rust Stripper	Oil-rejecting	Liquid	10-30%	6.9	140°F-200°F (60°- 93°C)	<ul style="list-style-type: none"> <li>Fe</li> </ul>	<ul style="list-style-type: none"> <li>Rust</li> </ul>	<b>Moderate Duty</b> <ul style="list-style-type: none"> <li>Very operator friendly due to neutral pH and easy disposal</li> </ul>

### ACID CLEANERS

PRODUCT / DESCRIPTION	CHEMISTRY <sup>1</sup>	TYPE	CONC. RANGE	AVG. OPER. pH	OPERATING TEMP. RANGE	METAL SAFETY	SOILS REMOVED	CLEANING POWER & PERFORMANCE BENEFITS
<b>Q-BRITE 180</b> Acid Descaler for Spray Washers	Oil-dispersing	Liquid	5-10%	1.4	Ambient-180°F (82°C)	<ul style="list-style-type: none"> <li>Al</li> <li>Fe</li> </ul>	<ul style="list-style-type: none"> <li>Scale</li> <li>Inorganic deposits</li> </ul>	<b>Heavy Duty</b> <ul style="list-style-type: none"> <li>Dissolves hard water salts, rust and scale build-up typically found to clog nozzles and lines in spray washers after extended use</li> <li>Works in less than one hour</li> <li>Inhibited to reduce acid attack on the metal equipment</li> </ul>
<b>Q-BRITE 542</b> Rust Stripper and Brightener	Emulsifying	Liquid	3-5%	2.4	Ambient-200°F (93°C)	<ul style="list-style-type: none"> <li>Fe</li> </ul>	<ul style="list-style-type: none"> <li>Rust</li> </ul>	<b>Light to Moderate Duty</b> <ul style="list-style-type: none"> <li>Used to brighten tungsten carbide</li> <li>May be used in immersion cleaning applications</li> </ul>
<b>Q-BRITE 986</b> Burnishing Compound and Brightener	Oil-dispersing	Liquid	3-5%	3.2	Ambient-200°F (93°C)	<ul style="list-style-type: none"> <li>Al</li> <li>Fe</li> <li>Yellow metals</li> </ul>	<ul style="list-style-type: none"> <li>Tarnish</li> </ul>	<b>Light to Moderate Duty</b> <ul style="list-style-type: none"> <li>Brightens weathered or tarnished material such as copper and brass</li> </ul>
<b>RUST KLEEN 936</b> Acid Rust Stripper	Oil-dispersing	Liquid	5-40%	1.2	Ambient-180°F (82°C)	<ul style="list-style-type: none"> <li>Fe</li> </ul>	<ul style="list-style-type: none"> <li>Rust</li> </ul>	<b>Moderate Duty</b> <ul style="list-style-type: none"> <li>Can be used up to 180°F (82°C) to enhance rust stripping efficiency</li> <li>Inhibited to reduce acid attack on the metal equipment</li> </ul>

<sup>1</sup> Oil-rejecting cleaners split oils to the top for easy skimming. Oil-dispersing cleaners break up the soil into fine particles, which are then suspended and flushed off the surface. Emulsifying cleaners break up and suspend loosened dirt to keep it from settling back on the cleaned surface.



## Cleaners Selection Guide continued

FLOOR CLEANERS						
PRODUCT / DESCRIPTION	TYPE	CONC. RANGE	AVG. OPER. pH	OPERATING TEMP. RANGE	SOILS REMOVED	CLEANING POWER & PERFORMANCE BENEFITS
<b>CITRUS CUTTER</b> Premium All Purpose Maintenance and Floor Cleaner	Liquid	1-10%	11.3	Ambient Non-flammable	<ul style="list-style-type: none"> <li>Cutting fluids</li> <li>Grease &amp; oil</li> <li>Drawing &amp; polishing compounds</li> <li>Carbon &amp; baked on residues</li> <li>Organic &amp; inorganic materials</li> </ul>	<b>Moderate Duty</b> <ul style="list-style-type: none"> <li>Biodegradable, general purpose cleaner and degreaser</li> <li>For use in automatic floor scrubbers and mop buckets as well as spray bottles and hand cleaning applications. Our most popular floor cleaner with pleasant citrus odor</li> <li>Highly concentrated, cost-effective and free of glycol ethers</li> </ul>
<b>TUFF CUT 970</b> Economical Floor Cleaner	Liquid	2-10%	9.9	Ambient Non-flammable	<ul style="list-style-type: none"> <li>Cutting fluids</li> <li>Grease &amp; oil</li> <li>Drawing &amp; polishing compounds</li> <li>Carbon &amp; baked on residues</li> <li>Organic &amp; inorganic materials</li> </ul>	<b>Light Duty</b> <ul style="list-style-type: none"> <li>Highly concentrated, universal, non-butyl cleaner and degreaser for use in automatic floor scrubbers and mop buckets. May also be used in immersion cleaning applications as well as pressure washers, spray bottles and hand cleaning applications</li> <li>Operator-friendly with mild pH and pleasant odor</li> <li>Silicate-free</li> </ul>
<b>TUFF CUT HDF</b> Heavy Duty Floor Cleaner	Liquid	2-10%	12.2	Ambient Non-flammable	<ul style="list-style-type: none"> <li>Cutting fluids</li> <li>Grease &amp; oil</li> <li>Drawing &amp; polishing compounds</li> <li>Carbon &amp; baked on residues</li> <li>Organic &amp; inorganic materials</li> </ul>	<b>Heavy Duty</b> <ul style="list-style-type: none"> <li>Universal cleaner and degreaser for plant floors with lots of grease, oil, tire marks, etc. For use in automatic floor scrubbers and mop buckets as well as spray bottles and hand cleaning applications</li> <li>Highly concentrated, cost-effective</li> <li>Silicate-free</li> </ul>
MAINTENANCE CLEANERS						
PRODUCT / DESCRIPTION	TYPE	CONC. RANGE	AVG. OPER. pH	OPERATING TEMP. RANGE	SOILS REMOVED	CLEANING POWER & PERFORMANCE BENEFITS
<b>CITRUS CUTTER</b> Premium All Purpose Maintenance and Floor Cleaner	Liquid	1-10%	11.3	Ambient Non-flammable	<ul style="list-style-type: none"> <li>Cutting fluids</li> <li>Grease &amp; oil</li> <li>Drawing &amp; polishing compounds</li> <li>Carbon &amp; baked on residues</li> <li>Organic &amp; inorganic materials</li> </ul>	<b>Moderate Duty</b> <ul style="list-style-type: none"> <li>Biodegradable, general purpose cleaner and degreaser</li> <li>For use in automatic floor scrubbers and mop buckets as well as spray bottles and hand cleaning applications. Our most popular floor cleaner with pleasant citrus odor</li> <li>Highly concentrated, cost-effective and free of glycol ethers</li> </ul>
<b>TUFF CUT 900</b> General Purpose Cleaner	Liquid	1-10%	12.6	70° - 200°F (21° - 93°C)	<ul style="list-style-type: none"> <li>Cutting fluids</li> <li>Grease &amp; oil</li> <li>Drawing &amp; polishing compounds</li> </ul>	<b>Heavy Duty</b> <ul style="list-style-type: none"> <li>High pH, silicated cleaner for general maintenance and floor cleaning</li> <li>Rinses off easily and leaves no residue</li> <li>Can be used safely on ferrous and non-ferrous metals</li> </ul>
<b>TUFF CUT HDS</b> Heavy Duty Cleaner and Degreaser	Liquid	2-10%	12.5	Ambient Non-flammable	<ul style="list-style-type: none"> <li>Cutting fluids</li> <li>Grease &amp; oil</li> <li>Drawing &amp; polishing compounds</li> <li>Carbon &amp; baked on residues</li> <li>Organic &amp; inorganic materials</li> </ul>	<b>Heavy Duty</b> <ul style="list-style-type: none"> <li>Versatile cleaner with unsurpassed degreasing properties. Highly effective at removing difficult soils from a variety of hard surfaces. One of the most powerful cleaners on the market</li> <li>Highly concentrated and cost-effective</li> <li>May also be used in automatic floor scrubbers and mop buckets</li> </ul>
<b>TUFF CUT SW</b> All Purpose Spray and Wipe Cleaner	Liquid	Neat	12.0	Ambient Non-flammable	<ul style="list-style-type: none"> <li>Cutting fluids</li> <li>Grease &amp; oil</li> <li>Organic materials</li> </ul>	<b>Moderate Duty</b> <ul style="list-style-type: none"> <li>Universal, non-butyl cleaner for tough cleaning applications. Instantly dissolves greasy, oily soils leaving a clean surface. Can be diluted when full strength is not required</li> <li>Highly concentrated, cost-effective</li> </ul>

## Cleaners Selection Guide continued

### MACHINE TOOL CLEANERS

PRODUCT / DESCRIPTION	TYPE	CONC. RANGE	AVG. OPER. pH	OPERATING TEMP. RANGE	SOILS REMOVED	CLEANING POWER & PERFORMANCE BENEFITS
<b>EQO-KLEEN SMP</b> Operator Friendly and Environmentally Friendly Sump Cleaner	Liquid	3-10%	9.5	Ambient-180°F (82°C)	<ul style="list-style-type: none"> <li>Cutting fluids</li> <li>Grease &amp; oil</li> <li>Drawing &amp; polishing compounds</li> <li>Carbon &amp; baked on residues</li> <li>Organic &amp; inorganic materials</li> </ul>	<b>Moderate Duty</b> <ul style="list-style-type: none"> <li>Specifically designed to be environmentally safer than traditional harsh sump cleaning chemistries</li> <li>Formulated without the use of caustics, silicates, phosphates, glycol ethers or alkyl-phenol surfactants</li> <li>Operator friendly due to mild pH and pleasant citrus odor</li> <li>Low foaming with excellent corrosion protection and low residue formula for easy rinsing</li> <li>May also be used in immersion cleaning applications as well as spray washers, pressure washers and automatic floor scrubbers</li> </ul>
<b>MET-KLEEN 155</b> Machine Tool Cleaner and Central System Cleaner	Liquid	1-10%	11.3	Ambient-180°F (82°C)	<ul style="list-style-type: none"> <li>Cutting fluids</li> <li>Grease &amp; oil</li> <li>Drawing &amp; polishing compounds</li> <li>Carbon &amp; baked on residues</li> <li>Organic &amp; inorganic materials</li> <li>Light rust</li> </ul>	<b>Heavy Duty</b> <ul style="list-style-type: none"> <li>Low foam cleaner designed to optimize the cleaning of baked on grease and carbon, hardened deposits of chips and swarf, oily and gummy deposits as well as grit and dirt from all machine surfaces</li> <li>May also be used in immersion cleaning applications as well as spray washers, pressure washers and automatic floor scrubbers</li> </ul>

### SOLVENT CLEANERS

PRODUCT / DESCRIPTION	SOLVENT TYPE	Kb VALUE <sup>2</sup>	OPERATING TEMP. & FLASH PT.	METAL SAFETY	SOILS REMOVED	PERFORMANCE BENEFITS
<b>BIOSOLV D</b> Machine Cleaner for Straight Oil Applications	Citrus	67	TEMPERATURE: Ambient FLASH POINT: >110°F (43°C)	All metals	<ul style="list-style-type: none"> <li>Straight cutting oils</li> <li>Grease &amp; oil</li> <li>Drawing &amp; polishing compounds</li> <li>Organic materials</li> </ul>	<ul style="list-style-type: none"> <li>Biodegradable, non-chlorinated solvent with outstanding solvency due to its higher Kb value</li> <li>Effectively removes "varnished" oils and other by-products resulting from the breakdown of neat oils</li> <li>May be brushed, swabbed or sprayed on manually</li> </ul>
<b>CITRA-SOLV 320</b> Parts Washing Solvent Cleaner	Aliphatic hydrocarbon and citrus blend	38	TEMPERATURE: Ambient FLASH POINT: >141°F (61°C)	All metals	<ul style="list-style-type: none"> <li>Straight cutting oils</li> <li>Grease &amp; oil</li> <li>Drawing &amp; polishing compounds</li> <li>Organic materials</li> </ul>	<ul style="list-style-type: none"> <li>Non-chlorinated solvent with excellent solvency</li> <li>Rapid cleaning</li> <li>Improved cleaning capabilities compared to traditional hydrocarbon solvents</li> <li>Formulated for use in parts washers, but may also be brushed, swabbed or sprayed on manually</li> </ul>
<b>ULTRA SOLV 563</b> Low Odor Parts Washing Solvent Cleaner	Aliphatic hydrocarbon	32	TEMPERATURE: Ambient FLASH POINT: 109°F (43°C)	All metals	<ul style="list-style-type: none"> <li>Straight cutting oils</li> <li>Grease &amp; oil</li> <li>Drawing &amp; polishing compounds</li> <li>Organic materials</li> </ul>	<ul style="list-style-type: none"> <li>Non-chlorinated solvent with very good solvency</li> <li>Produces fast-drying, residue-free parts</li> <li>May also be brushed, swabbed or sprayed on manually</li> </ul>
<b>ULTRA SOLV 568</b> Low Odor Parts Washing Solvent Cleaner	Aliphatic hydrocarbon	31	TEMPERATURE: Ambient FLASH POINT: 142°F (61°C)	All metals	<ul style="list-style-type: none"> <li>Straight cutting oils</li> <li>Grease &amp; oil</li> <li>Drawing &amp; polishing compounds</li> <li>Organic materials</li> </ul>	<ul style="list-style-type: none"> <li>Non-chlorinated solvent with good solvency</li> <li>Produces moderate-drying, residue-free parts</li> <li>Ships as non-hazardous due to a high flash point</li> <li>May also be brushed, swabbed or sprayed on manually</li> </ul>
<b>ULTRA SOLV 569</b> Low Odor Parts Washing Solvent Cleaner	Aliphatic hydrocarbon	28	TEMPERATURE: Ambient FLASH POINT: 204°F (96°C)	All metals	<ul style="list-style-type: none"> <li>Straight cutting oils</li> <li>Grease &amp; oil</li> <li>Drawing &amp; polishing compounds</li> <li>Organic materials</li> </ul>	<ul style="list-style-type: none"> <li>Non-chlorinated, low hazard solvent with moderate solvency</li> <li>Produces slower-drying, residue-free parts</li> <li>Ships as non-hazardous</li> <li>May also be brushed, swabbed or sprayed on manually</li> </ul>

<sup>2</sup> Kb value is an international, standardized measure of solvency power. The higher number indicates more solvency and better cleaning performance.



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